## **CLAIMS**

- 1. A receiver comprising:
- an amplification means for amplifying a receiver signal based on an 5 AGC signal;
  - a CORDIC means for calculating a receiving amplitude of a known symbol which is a constant amplitude; and
- a control means for generating the AGC signal based on the receiving amplitude calculated by the CORDIC means and applying the AGC signal to the amplification means.
  - 2. The receiver according to claim 1, further comprising a carrier frequency correction means for negating carrier frequency offset, wherein the CORDIC means detects the carrier frequency offset from a delay detection output of a receiving known symbol and a correlation output with the known symbol.
  - 3. A receiver comprising:

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- a means for detecting carrier frequency offset; and
- a CORDIC means for generating a sine wave and a cosine wave corresponding to the detected carrier frequency offset, and conducting frequency offset correction process.
  - 4. A receiver comprising:
- a CORDIC means for multiple-dividing a receiving known symbol

by a known symbol, and detecting a channel skewness; and a CORDIC means for compensating the detected channel skewness.

5. A receiver comprising a means for conducting maximum ratio synthesis diversity process while normalizing an output amplitude of a receiver signal of each branch by a systolic allay architecture wherein a CORDIC is a basic cell.